



U.S. Department
of Transportation

**Federal Aviation
Administration**

Memorandum

Subject: INFORMATION: Further Information with respect to use
of Industry Standards in Seat Certification

Date: September 12, 2001

From: Manager, Transport Airplane Directorate,
Aircraft Certification Service, ANM-100

Reply to Attn.
of: 01-115-38

Regulatory §§ 25.601, 25.785
Reference:

To: SEE DISTRIBUTION LIST

This memorandum is issued in follow-up to our memorandum 01-115-32, which discussed the use of industry standards in the seat certification process and, in particular, qualification of video monitors and arms mounted on seats.

The memorandum states the following with regard to the Society of Automotive Engineers (SAE) Aerospace Recommended Practice (ARP) that addresses video system abuse load testing: "This document, ARP 5475, represents the industry recommendation for making an assessment of the injury potential for a video system, and is an acceptable means of addressing this feature. With the issuance of the this ARP, the Transport Airplane Directorate considers that qualification of the seat itself using that document is sufficient to show compliance with the Federal Aviation Regulations with respect to the in-arm video monitor. That is, the in-arm video may be treated the same way as are other seat features. Based on successful experience with design features qualified in accordance with industry standards, we believe that this will simplify the certification process with no adverse effect on safety." The Federal Aviation Administration is accepting that the basic design features are addressed by virtue of the existence of the ARP, and that seat manufacturers will use this in their design and qualification process. As discussed in memorandum 01-115-32, this approach is also based on satisfactory service history and the fact that video systems are no longer a new type of installation.

As noted, the intent of the above was to reduce the regulatory burden on the industry by greatly simplifying the certification process for video abuse load testing of video system deployed from passenger seats. Some questions have arisen in the field as to what exactly is necessary to ensure that the abuse loads have been adequately addressed.

A statement from the seat manufacturer that the seat has met the pass/fail criteria in the ARP is sufficient. This may be a specific statement or encompassed in a more general statement. An example of the latter is as follows. The seat installer (e.g., an airplane manufacturer) includes the ARP in its seat interface requirements document (or equivalent) that all seat suppliers must meet. The purpose of that document is to ensure that the seat will meet the requirements of the interface with the airplane. The seat supplier, upon delivery of the seats, provides a statement to the installer that all of the requirements of the interface document have been met. This would be sufficient and a specific statement regarding ARP 5475 would not be necessary. On the other hand, if it is the seat installer who actually installs the

video equipment into the seats provided by the seat supplier, a statement from the seat installer that the equipment has been satisfactorily tested per the ARP would be sufficient.

When such a statement is provided, it is not necessary for the FAA engineer or designee reviewing the seat installation to further review the installation with respect to the issues covered under the “Scope” portion of ARP 5475.

Any questions may be directed to Jeff Gardlin at (425) 227-2136.

original signed by: Ali Bahrami

Vi L. Lipski